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Claims:

1. (previously presented) A method of assembling a frame structure of a SDH signal at a hierarchy level N, comprising:

 receiving a hierarchically multiplexed administrative unit AU-n comprising an AU-n payload and an AU-n pointer;

 transforming said AU-n into a tributary unit TU-n having a TU-n payload and a TU-n pointer such that said AU-n becomes said TU-n, said transforming including transforming said AU-n payload of said AU-n into the TU-n payload of said TU-n and transforming said AU-n pointer of said AU-n into said TU-n pointer of said TU-n; and

 hierarchically multiplexing said TU-n into said frame structure, where $n \geq 3$, and gives the granularity of said SDH signal, and said AU-n pointer transformed into said TU-n pointer provides the beginning of said TU-n payload with respect to said frame structure.
2. (amended) A method as claimed in claim 1, wherein said step of ~~translating comprises:~~
transforming includes

 ~~translating said AU-n payload into a TU-n payload; and~~

 ~~transforming said AU-n pointer into a TU-n pointer and aligning said AU-n~~
payload into said TU-n based on said TU-n pointer.
3. (Original) A method as claimed in claim 1, wherein said step of hierarchically multiplexing comprises:

 mapping said TU-n into a tributary unit group TUG-n;

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hierarchically multiplexing said TUG-n into a higher order TUG-k;
mapping said TUG-k into a higher order virtual container VC-k of same
hierarchical level;
aligning said higher order virtual container into a AU-k by providing a AU-k
pointer;
mapping said AU-k into a administrative unit group AUG-k and
assembling said frame structure from said AUG-k,
where $k \geq n$.

4. (amended) A method as claimed in claim 2, wherein said step of ~~translating~~
transforming said AU-n payload comprises:

mapping the user information from said AU-n payload into said TU-n payload
field; and
providing fixed stuff bits whenever the size of said TU-n payload field is larger
than the area occupied by said user information.

5. (Original) A method as claimed in claim 3, wherein said step of hierarchically
multiplexing said TUG-n into a TUG-k comprises:

(a) mapping said TU-n into a TUG-n;
(b) multiplexing said TUG-n into a VC-k;
(c) mapping VC-k into a TU-k by adding a POH field corresponding to a
hierarchical level k;
(d) mapping said TU-k into a TUG-k; and

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(e) repeating steps (a) to (c) to the hierarchy level N.

6. (Original) A method as claimed in claim 2, wherein $n=3$ and $N=4$ for obtaining a hierarchically multiplexed STM-4.
7. (Original) A method as claimed in claim 6, wherein said step of hierarchically multiplexing comprises:
 - mapping said TU-3 into a tributary unit group TUG-3;
 - hierarchically multiplexing said TUG-3 into a TUG-5;
 - mapping said TUG-5 into a higher order virtual container VC-5 of same hierarchical level;
 - aligning said higher order virtual container into a AU-5 by providing a AU-5 pointer;
 - mapping said AU-5 into an administrative unit group AUG-N; and
 - assembling said frame structure from said AUG-4 group.
8. (Original) A method as claimed in claim 2, wherein $n=4$ and $N=4$ for obtaining a hierarchically multiplexed STM-4.
9. (Original) A method as claimed in claim 8, wherein said step of hierarchically multiplexing comprises:
 - mapping said TU-4 into a tributary unit group TUG-4;
 - hierarchically multiplexing said TUG-4 into a TUG-5;

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mapping said TUG-5 into a higher order virtual container VC-5 of same hierarchical level;

aligning said higher order virtual container into a AU-5 by providing a AU-5 pointer;

mapping said AUG-5 into a administrative unit group AUG-N; and
assembling said frame structure from said AUG-4 group.

10. (previously presented) A method of assembling a frame structure of a SDH signal comprising:

receiving a hierarchically multiplexed administrative unit AU-n-mc comprising a concatenated AU-n-mc payload and an AU-n-mc pointer;

transforming said AU-n-mc to a tributary unit TU-n-mc having a TU-n-mc payload and a TU-n-mc pointer such that said AU-n-mc becomes said TU-n-mc, said transforming including transforming said AU-n-mc payload of said AU-n-mc into the TU-n-mc payload of said TU-n-mc and transforming said AU-n-mc pointer of said AU-n-mc into said TU-n-mc pointer of said TU-n-mc; and

hierarchically multiplexing said TU-n-mc into said frame structure, where $n \geq 3$, and give the granularity of said speed payload, m is the level of concentration and said AU-n-mc pointer transformed into said TU-n-mc pointer provides the beginning of said TU-n-mc payload with respect to said frame structure.

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11. (previously presented) A method of reducing the number of AU pointers of a very high speed synchronous transport signal STM-N with AU-n granularity, an AU-n unit having an AU pointer and an AU payload, the method comprising:

for each AU-n unit, moving said AU-n pointer from the overhead field into said AU payload;

transforming said AU-n payload having the AU-n pointer placed therein into a TU-n payload of a tributary unit TU-n such that the AU-n becomes said TU-n; and hierarchically multiplexing said TU-n into a frame structure.

12. (canceled)

13. (canceled)

14. (canceled)